

Gold's Gym Newsletter

LAKE RIDGE & LORTON, VA

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Train for Strength. Train for Life.

Building Muscle After 40: Why What Worked at 25 May Not Work at 45

Have you ever wondered why the workout and nutrition program that once changed your body so quickly no longer delivers the same results? You may be training consistently. You may be eating plenty of protein. You may even be lifting the same weights, following the same split, and putting in just as much effort as you did years ago. Yet muscle seems harder to build. There is a physiological reason for this, and understanding it can completely change the way you approach training as you get older. **It is called anabolic resistance.**

Your Muscles Have Not Lost the Ability to Grow

Anabolic resistance describes a reduced response of skeletal muscle to the signals that normally stimulate muscle protein synthesis, particularly resistance exercise and dietary protein. Think of muscle protein synthesis as your body's construction crew. When you are younger, it does not take much of a signal to get that crew working. Eat a protein-rich meal, challenge your muscles in the gym, and the repair-and-growth machinery responds strongly. As we age, that machinery can become less responsive. The construction crew is still there. It just needs a stronger and more consistent signal. That distinction matters because anabolic resistance doesn't mean muscle growth after 40, 50, 60, or even 70 is impossible. Far from it. Older adults can build meaningful muscle and strength with resistance training. But the strategy that worked effortlessly at 25 may need to become more intentional later in life.

Why Protein Becomes Even More Important

Protein supplies the amino acids your body needs to repair and build muscle. One amino acid deserves special attention: **leucine**. Leucine acts as an important nutritional signal for muscle protein synthesis through a cellular pathway called mTORC1. Research suggests that older muscle generally requires a larger dose of high-quality protein and essential amino acids to produce a muscle protein synthesis response comparable to that of younger muscle. That does not mean everyone over 40 needs enormous quantities of protein or a leucine supplement. Testosterone and Growth Hormone certainly help enormously. It means **protein quality, quantity, and distribution throughout the day matter**. Instead of eating very little protein at breakfast and lunch and then a huge serving at dinner, spread high-quality protein across several meals. Foods naturally rich in leucine and essential amino acids include whey protein, Greek yogurt and other dairy products, eggs, fish, poultry, lean meats and soy. For many active adults, **25 to 40 grams of high-quality protein per meal is a practical range**. However, individual needs vary by body size, age, activity level, kidney health, and total daily intake.

Do Not Forget the Most Powerful Signal: Strength Training

Nutrition alone cannot replace resistance training. Muscle needs a reason to stay. When you progressively challenge muscle against resistance, you send a powerful message to your body that the tissue is necessary. That is why maintaining muscle requires more than simply being active. Walking is wonderful for cardiovascular health. Yoga can improve mobility, balance, and strength. Cycling and other cardiovascular exercise improve fitness. But if preserving muscle is the goal, **progressive resistance training must remain a major part**

of the equation. That means challenging your muscles sufficiently and gradually progressing your training as your body adapts. Progress might mean increasing resistance, improving technique, increasing repetitions within an appropriate range, or performing the same workload with greater control. You do not need to destroy yourself in every workout. You need to give your muscles a meaningful reason to adapt.

Recovery Becomes Part of the Training Program

More isn't always better, especially as we get older. The workout provides the stimulus. Recovery is when adaptation occurs. Poor sleep, inadequate calories, insufficient protein, excessive training volume, and chronic stress can all interfere with recovery. Inflammation also plays a role. Scientists sometimes use the term **inflammaging** to describe the chronic, low-grade inflammatory environment that can accompany aging. Persistent inflammation is linked to muscle loss and impaired muscle function. But the solution is not an exotic supplement stack. No peptide or hormone replacement can enhance estrogen. Without hormone optimization, you won't get the true result you are looking for: estrogen, testosterone, and Progesterone above the normal lab values you see. Start with the fundamentals that consistently matter: regular exercise, adequate sleep, appropriate nutrition, maintaining metabolic health, not smoking, and allowing enough recovery between demanding training sessions.

Creatine Is Not Just for Bodybuilders

Creatine monohydrate deserves special mention because it is one of the most extensively studied sports nutrition supplements available. In older adults, research shows that creatine combined with resistance



training can improve strength and may enhance lean tissue gains. A commonly studied maintenance amount is 3 to 5 grams per day. Creatine is not a replacement for protein or training. Think of it as another potential tool layered on top of a strong foundation. Anyone with kidney disease or other significant medical conditions should discuss supplementation with their healthcare professional first.

Hormones Matter, But They Are Not a DIY Project

Hormonal changes are another part of the aging-and-muscle equation. Testosterone changes with age in men, while menopause produces substantial changes in estrogen and other hormones in women. Hormones influence muscle, bone, recovery, body composition, and many other systems. However, this does not mean everyone over 40 needs hormone replacement, but most do. Evaluate symptoms individually, order appropriate lab tests when indicated, and discuss hormone therapy with a qualified healthcare professional who can weigh the benefits, risks, and need for ongoing monitoring. More hormone is not automatically better, but the right levels are critical. If your doctor won't order all hormone labs or won't discuss them, find another doctor. You have every right to know your levels and assess them, but you need the right doctor. The traditional hormone lab data is outdated. The goal should always be appropriate medical care, not chasing a particular laboratory number. Appropriate is the word to consider. You are the conductor of your own orchestra; you have to take control of your own health. A doctor does not always know best; that's old-school thinking.

Women Experience Anabolic Resistance Too

This conversation isn't limited to men. Maintaining muscle becomes especially important for women as they move through perimenopause and menopause. Muscle is not merely about appearance. It supports strength, mobility, glucose disposal, metabolic health, independence, and resilience. Resistance training, alongside appropriate nutrition and weight-bearing activity, supports the musculoskeletal system as we age. For women who have spent decades focusing primarily on cardio, midlife is an excellent time to prioritize strength training. And... check your hormones. ALL OF THEM

How Much Protein Do You Actually Need?

I know, we can't stop talking about the protein. It's wild. You may have heard that everyone over 40 needs more than 2 grams of protein per kilogram of body weight every day. That is **not a universal requirement**.

Protein needs depend on your age, body size, training volume, goals, total calorie intake, and health. Active adults looking to maintain or gain muscle often benefit from protein intakes above the basic RDA of 0.8 g/kg/day. Research in resistance-trained individuals often suggests target levels; individual circumstances may require different levels, and protein isn't infinitely better. If you have reduced kidney function or kidney disease, discuss a substantial increase in protein intake with your healthcare professional.

The Gold's Gym Muscle After 40 Playbook

If building and preserving muscle is getting harder, don't assume your best years are behind you. Start with the fundamentals:

- **Train with progressive resistance.** Your muscles need sufficient mechanical stimulus to adapt.
- **Eat enough high-quality protein.** Spread it across the day rather than saving almost all of it for dinner.
- **Prioritize protein quality.** Include foods rich in essential amino acids and leucine.
- **Consider creatine.** For appropriate individuals, 3 to 5 grams of creatine monohydrate daily is one of the better-supported nutritional strategies to accompany resistance training.
- **Recover deliberately.** Make sleep and recovery part of your training program, not an afterthought.
- **Protect your metabolic health.** Blood glucose, cardiovascular fitness, body composition, and overall health influence how well you train and recover.
- **Do not ignore hormonal symptoms.** If something feels substantially different, speak with a qualified healthcare professional rather than attempting to diagnose or treat yourself.
- Most importantly, **keep lifting.**

At Gold's Gym, building muscle has never been simply about looking muscular. As we get older, strength takes on an entirely different meaning. It means carrying your groceries without thinking about it, fitting your suitcase into an overhead compartment, getting up from the floor, and protecting your bones and maintaining balance. It means continuing to travel, play with your grandchildren, participate in sports, and live independently. Muscle is something worth protecting. Anabolic resistance means your body may need a stronger, more deliberate signal than it once did. It does not mean your muscles have stopped responding. Your training has to evolve with you. If the program that worked at 25 no longer produces results at 45, 55, 65, or beyond, don't give up on your body. **Change the strategy. Keep the commitment. Keep getting stronger.** That is what training for life looks like.

Under 40? This Article Is for You Too

After reading about anabolic resistance and why building muscle can become more challenging as we age, you might be thinking: **"Great information, but I'm 25, 30, or 35. This doesn't apply to me yet."** Not so fast. If you are under 40, you have something incredibly valuable on your side: **time**. Your muscles are generally more

responsive to resistance training and dietary protein than they will be decades from now. Recovery may be faster. Your anabolic response to a meal may be stronger. And depending on your age and individual physiology, your hormonal environment may be more favorable for building and maintaining lean tissue. Instead of waiting until maintaining muscle becomes harder, use this opportunity to **build your reserve now**.

Think of Muscle Like a Retirement Account

Imagine beginning to save for retirement at 25 versus starting at 55. The person who starts earlier has an enormous advantage. Muscle works somewhat similarly. You cannot literally store today's muscle for retirement, because muscle remains dynamic throughout life. But entering your 40s, 50s, and 60s with more strength, more lean mass, better movement patterns, and years of resistance-training experience gives you a tremendous head start. The goal isn't simply to build a great body today. It is to build a body that continues working for you decades from now.

Take Advantage of Your Responsiveness

Younger muscle generally responds very well to resistance training and high-quality protein. That means you don't necessarily need complicated strategies. You need consistency. Train hard enough to create adaptation. Progress your exercises over time. Eat adequate protein. Eat enough total calories to support your goals. Sleep. Recover. Repeat. It sounds simple because it is. Simple does not mean easy.

Don't Waste Your Best Training Years Scrolling

One of the biggest mistakes we see has nothing to do with exercise selection. **It is lack of focus.** Sitting on a machine scrolling through your phone for five or ten minutes between sets isn't productive recovery. It turns a focused training session into an hour of fragmented effort. 3 minutes max between sets, and that's generous. When you come to Gold's Gym, come to train. Put your phone down. Know what you're doing before you begin. Track your lifts. Use appropriate rest periods. Progress your weights when you're ready. Ask for a work-in when someone is using equipment you need, and allow other members to work in with you when appropriate.

Thirty focused minutes can accomplish far



more than 90 distracted minutes.

Protein Still Matters Under 40

You don't need to wait until anabolic resistance becomes a concern to pay attention to nutrition. For resistance-trained adults, about **1.6 grams of protein per kilogram of body weight per day** is a useful, evidence-based target for maximizing muscle development for many people. You also don't need to obsess over leucine at every meal if you are young, healthy, and already consuming adequate amounts of high-quality protein. Build your meals around quality protein sources and distribute your protein reasonably throughout the day. Then get back to training.

Creatine Isn't Only for Older Adults Either

Creatine monohydrate has decades of research behind it and can support strength, power, and lean mass gains when combined with resistance training. For healthy adults, **3 to 5 grams daily** is a commonly studied amount. But remember the hierarchy. Creatine cannot compensate for inconsistent training, poor nutrition, or inadequate recovery. Supplements supplement the foundation. They don't create it.

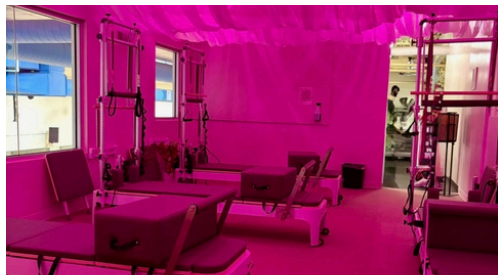
Your Goal Isn't Just More Muscle

We want our younger Gold's Gym members to understand something that often takes people decades to appreciate: **The muscle you build today serves a purpose far beyond appearance.** Muscle helps regulate glucose. Strength supports your joints and bones. Fitness improves cardiovascular health. Resistance training develops physical capacity that you will use throughout your life. The goal isn't simply to look great at 30. We want you strong at 40. Strong at 50. Strong at 60. Strong at 70 and beyond.

Start Before You Need To

People often become interested in longevity when something starts to go wrong. We would rather see you take the opposite approach. Don't wait until you lose strength to value strength. Don't wait until muscle becomes harder to build to start building it. Don't wait until your balance deteriorates to train it. Don't wait until a health problem appears to become interested in metabolic health. And don't wait until you're older to start thinking about how you want to age. If you're under 40, your message is actually very simple: **Build now.** Build muscle. Build strength. Build cardiovascular fitness. Build healthy habits. Build consistency. The goal isn't to fight aging someday. The goal is to arrive there prepared.

Gold's Gym Lake Ridge & Gold's Gym Lorton
Train for strength. Train for health. Train for life.



Your Thyroid Is More Than a TSH Number

Understanding TSH, T4, T3, Reverse T3 and the often forgotten T2

You train. You try to eat well. You work on your sleep. Yet you may still feel tired, struggle to lose weight, feel unusually cold, notice changes in your hair, have trouble concentrating, or feel as though your metabolism isn't responding the way it used to. Then you have bloodwork done and hear the words: **"Your thyroid is normal."** But what was actually tested?¹ This is one of the central questions Dr. Amie Hornaman raises in her book *The Thyroid Fix*. Hornaman argues that relying on TSH alone can miss key information about how the body produces, converts, and ultimately uses thyroid hormones.¹ To understand why, it helps to stop thinking about "the thyroid" as one number.

TSH: The Messenger

TSH stands for **thyroid-stimulating hormone**. Interestingly, TSH isn't actually produced by your thyroid. It is produced by the pituitary gland in your brain. Think of TSH as a messenger. Your brain is constantly monitoring the amount of thyroid hormone circulating in your body. When it senses that more thyroid hormone may be needed, the pituitary sends TSH to the thyroid with the message: **Produce more thyroid hormone.** As circulating thyroid hormone rises, the brain generally reduces that signal, and TSH falls. This feedback system is why TSH has traditionally been used as the primary screening test for thyroid function. But Hornaman emphasizes an important distinction: **TSH tells us about the signal being sent to the thyroid. It doesn't tell us the entire story of what happens to thyroid hormone afterward.**¹ In Hornaman's framework, she generally prefers TSH **below 2.0**, but emphasizes that TSH should be interpreted alongside other thyroid markers rather than on its own.¹

T4: The Storage Hormone

Your thyroid produces predominantly **T4**, or thyroxine. T4 contains four iodine molecules, hence the "4." Hornaman describes T4 primarily as a **storage or precursor hormone**.¹ Your body can produce plenty of T4, but much of that T4 still needs to be converted into the more metabolically active thyroid hormone, T3. This is an important distinction. Having enough T4 does not necessarily tell you how much usable T3 is reaching your tissues. That conversion step becomes one of the most important parts of the thyroid story.

T3: The Active Thyroid Hormone

T3, or triiodothyronine, is the thyroid hormone Hornaman emphasizes because it is the metabolically active form.¹ T3 interacts with receptors throughout the body and influences processes involving energy production, body temperature, heart function, cognition, and metabolism. Some T3 comes directly from the thyroid, but much of it is created when the body converts T4 into T3. One iodine molecule is removed: **T4 → T3**. Simple on paper. But many factors can influence that conversion. Our

environment is creating chaos in our bodies. Processed foods, pollution, toxins, and the environment prevent our bodies from functioning properly. Our endocrine systems are disrupted, and we need to pay attention to that. Your thyroid is disrupted. Hornaman discusses stress, inflammation, nutrient status, illness, insulin resistance, and other metabolic factors as potential influences on thyroid hormone conversion. This is one reason she places such importance on measuring **Free T3** rather than simply looking at TSH. Many people are on thyroid medication but only getting T4.

And Then There Is T2

Most people have heard of T3 and T4. Far fewer have heard of **T2**. T2, or 3,5-diiodothyronine, is another naturally occurring thyroid hormone and is one of the subjects Hornaman has discussed extensively.¹ Unlike TSH, T3, and T4, T2 isn't routinely measured on standard clinical bloodwork. Hornaman is particularly interested in T2 because of its relationship with **mitochondrial activity, energy expenditure, thermogenesis, and fat metabolism. Definitely great for weight loss and very effective; it's easy to get, not expensive, and has zero side effects.**¹ You don't need to have a thyroid issue to take T2. Mitochondria are the structures inside our cells that produce much of the energy our bodies use. Hornaman describes T2 as acting strongly at this mitochondrial level and believes it is an overlooked piece of the thyroid and metabolism conversation.¹ She also distinguishes T2 from T3 and T4 because T2 supplementation is available as a dietary supplement rather than a prescription thyroid medication.¹ That does not mean everyone should automatically take T2. It means that, within Hornaman's thyroid model, T2 deserves a place in the conversation rather than being forgotten.

What About T1?

The thyroid produces several iodinated compounds, including T1. But Hornaman doesn't place the same clinical emphasis on T1 as she does on T2, T3, and T4, and there is no routine clinical T1 test.¹ For someone trying to understand their thyroid bloodwork, T1 is therefore usually not the focus.

What Does a More Complete Thyroid Panel Look Like?

Following Hornaman's approach, a more complete thyroid discussion can include:

- **TSH**
- **Free T4**
- **Free T3**
- **Reverse T3**
- **TPO antibodies**
- **Thyroglobulin antibodies**

The antibody tests matter because they can help identify **Hashimoto's thyroiditis**, an autoimmune condition in which the immune system attacks thyroid tissue. Hornaman strongly emphasizes antibody testing because thyroid hormone levels

alone don't indicate whether an autoimmune process may be occurring.¹

Why Does This Matter to Someone Who Exercises?

Because thyroid hormones and metabolism are deeply connected. Your thyroid influences how your body produces and uses energy. That can affect body temperature, heart rate, muscle function, recovery, cognition, and how readily the body uses stored energy. This doesn't mean every stubborn pound, tired workout, or afternoon energy crash is a thyroid problem. It does mean that someone who consistently trains, eats appropriately, and takes care of themselves but still experiences unexplained fatigue, feels cold, has brain fog, notices hair changes, has difficulty managing weight, or has other persistent symptoms may want to have a more complete conversation with their healthcare provider. Instead of simply asking: **"Was my thyroid normal?"** Consider asking: **"Which thyroid markers were actually tested?"** A TSH result and a comprehensive thyroid evaluation are not the same.

Know Your Numbers. Then Ask Better Questions.

One of the most useful messages in *The Thyroid Fix* is not that everyone has a thyroid problem. It is that people should understand what is actually being measured. TSH is part of the story. T4 is part of the story. T3 is part of the story. Reverse T3 may provide another piece of the conversion picture. T2 introduces another fascinating connection between thyroid hormones, mitochondria, and metabolism. Thyroid antibodies can also reveal an entirely different autoimmune component. The goal isn't to diagnose yourself from a laboratory report. The goal is to become an informed participant in your own health. So the next time someone tells you, **"Your thyroid is fine,"** there is one very reasonable place to ask: **"Great. What did you test?"**

Next time you get your labs done, make sure you get a full thyroid panel that includes: TSH, Free T3, Free T4, reverse T3, thyroid peroxidase (TPO) antibodies, and thyroglobulin antibodies (TgAb). Nothing Less. Without reverse T3, you will not see the full picture, and don't let a doctor tell you otherwise. Look at the labs you already have. Are all these markers included? I would bet they are not all included. Take control of your health. Instead of waiting to find out the tests weren't done, get ahead of it and ask for them before your bloodwork. Here are the optimal levels you should see in a lab report:

- **Free T3 Optimal Range: 3.5- 4.4**
- **Reverse T3 – Optimal Range: Below 12**
- **T4 – Optimal Range: Less than 1.4**
- **TSH – Optimal Range: Under 2.0**

The Thyroid Fix – Buy it

This article is educational and reflects concepts Dr. Amie Hornaman discussed in The Thyroid Fix and her educational work. It is not intended to diagnose thyroid disease or replace individualized medical care.

Reformer Pilates is not just for women; It is, indeed, for men.

Strength with Springs

Think Pilates is just stretching? Think again. For men who lift, run, cycle, or train hard, Reformer Pilates can deliver a surprisingly intense strength workout while challenging the body in ways traditional weight training often doesn't. The Reformer uses adjustable spring resistance rather than a weight stack or dumbbells. But resistance is resistance. Increase the spring load, slow the movement, increase the range of motion, and maintain muscular tension throughout the exercise, and that "Pilates class" suddenly becomes serious work.

STRENGTH YOU HAVE TO CONTROL

One of the biggest differences between Reformer training and simply moving a heavy weight is **control**. On the Reformer, you cannot rely on momentum to finish a repetition. The carriage moves beneath you, the springs continually change the resistance, and your body must stabilize while producing force. You are asked to control both the working phase and the return. That controlled movement matters. Research comparing Pilates with other forms of exercise has found that Pilates can improve muscular strength and muscular endurance. However, researchers have not established that it is superior to traditional resistance training. A systematic review of randomized trials found Pilates produced strength outcomes comparable to other exercise modalities studied, while earlier research found moderate evidence for improvements in muscular endurance.² That's why Reformer belongs **alongside** your strength program, not replacing it.

THE MUSCLES YOUR BIG LIFTS MAY MISS

Heavy squats, presses, rows, and deadlifts are phenomenal exercises. But Reformer work introduces something different: instability, continuous resistance, unilateral movement, trunk stabilization, and movement through

WHY NOT ADD ONE DAY A WEEK?

You don't need to give up a day in the weight room and become a full-time Pilates devotee. Start by adding **one Reformer session per week** to your current training. Think of it as another piece of the strength puzzle: resistance, stability, mobility, muscular endurance, balance, and movement quality, all packaged into one workout. It may also expose weaknesses you didn't know you had. A stronger right side. A tighter left hip. Limited thoracic rotation. Poor shoulder stability. An inability to maintain trunk position once the extremities begin moving. Those discoveries can ultimately make you a more complete athlete.

HEAVY WEIGHTS + CONTROLLED MOVEMENT

The goal isn't Pilates **instead of** strength training. It's Pilates **with** strength training. Continue to squat. Continue to deadlift. Keep pressing, pulling, and progressively challenging your muscles with resistance. But consider spending one hour each week training something equally important:

how well you control the strength you've built. Because strength isn't only about how much weight you can move. It's also about how well you can move **yourself**.

Supplement Spotlight: Iodine

Iodine may be one of the most overlooked nutrients for thyroid and metabolic health. Your thyroid cannot manufacture thyroid hormones without iodine. In fact, iodine is a structural component of T4 and T3, the hormones that influence metabolic rate, energy production, body temperature, and tissue function throughout the body. Thyroid expert Dr. Amie Hornaman frequently emphasizes that the answer isn't avoiding iodine but getting the right amount consistently.¹ This has become increasingly relevant as many people have moved away from iodized table salt toward sea salt, Himalayan salt, and other specialty salts that may provide little or no iodine. Seafood, dairy, and eggs can provide iodine, but intake can vary considerably. When it comes to supplementation, more is definitely not better. The recommended dietary allowance for most adults is 150 mcg per day, and the established upper limit is 1,100 mcg per day from all sources. Dr. Hornaman similarly cautions against the aggressive milligram-level dosing that became popular years ago, noting that excessive iodine can push susceptible people toward thyroid dysfunction.¹ Her approach emphasizes smaller, consistent amounts and individualized dosing rather than megadosing.¹ For someone whose diet does not reliably provide iodine, a supplement containing approximately 150 mcg daily is a conservative nutritional starting point. Those with Hashimoto's, Graves' disease, thyroid nodules, or other thyroid disorders should discuss supplemental iodine with their healthcare provider because both too little and too much iodine can interfere with thyroid function.

At Gold's Gym Lake Ridge and Lorton, our goal is to help you understand your body, train with purpose, and build strength that supports every stage of life. Whether you are focused on muscle, thyroid health, hormones, recovery, or simply becoming more consistent, the message is the same: take ownership of your health and keep moving forward. We are here to educate, support, and grow with you every step of the way.

Yours in health,

Lori & Jeremy Lowell



REFERENCES
1. HORNAMAN, A. (2026). THE THYROID FIX: THE NO-NONSENSE GUIDE TO FIX FATIGUE, FOGGINESS, AND FAT THAT WON'T BUDGE. \$85/SIMON ELEMENT. ISBN 978-1668225424.
2. PINTO JR, SANTOS CS, SOUZA SOARES WJ, ET AL. IS PILATES BETTER THAN OTHER EXERCISES AT INCREASING MUSCLE STRENGTH? A SYSTEMATIC REVIEW. HELIYON. 2022;8(11):E11564. PUBLISHED 2022 NOV 14. DOI:10.1016/J.HELIVON.2022.E11564